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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|--------------------------|---------------------|------------------|
| 09/742,715 | 12/20/2000 | Robert H. Montgomery JR. | K-1775 | 7766 |

7590

02/26/2002

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EXAMINER

SINGH, SUNIL

ART UNIT

PAPER NUMBER

3673

DATE MAILED: 02/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,715

Applicant(s)

Montgomery Jr.

Examiner

Sunil Singh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Dec 20, 2000 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2,3
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference character "22" at page 5 line 31 of the specification is not shown. Correction is required.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "36" has been used to designate both a slot (page 7 line 10) and a holder (page 7 line 37). Correction is required.

Specification

3. The disclosure is objected to because of the following informalities: at page 9 line 12, "X-axis" appears to be incorrect; page 9 line 35, "2a" appears to be incorrect; page 10 line 4, "block" appears to be incorrect. Appropriate correction is required.
4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "said split portion extends for less than half the length of said body element" recited in claim 2, lacks proper antecedent basis in the specification.
5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the

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following is required: “wherein said angle is about 15 degrees” recited in claim 12, lacks proper antecedent basis in the specification.

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the subject matter recited in claims 14 and 16 lack proper antecedent basis in the specification.

7. The abstract of the disclosure is objected to because the word “invention” at lines 1 and 17, should be avoided in the abstract; at line 9, “opposite portion end” is grammatically awkward and makes the abstract confusing; at lines 11-12, “the opposite end portion of the aperture” is grammatically awkward and makes the abstract confusing; at line 19, “the horizontal axis” is confusing because it is not clear what element horizontal axis’s the “horizontal axis” is referring to; at line 20, “apt” appears as if it should be --aft--. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 3, 7-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 3 line 3, “a said cutting tool bit” is confusing and lacks proper antecedent basis.

Claim 7 lines 3-4, the terms “larger diameter” and “smaller diameter” render the claim indefinite since it is not clear what the “diameters” are compared to?

Claim 8 line 2, “said cavity” lacks clear antecedent basis.

Claim 8 lines 2-3, “the larger step bore” and “the smaller step bore” lack clear antecedent basis.

Claim 9 lines 10-11, “the horizontal plane” lacks clear antecedent basis.

Claim 9 line 12, “said vertical axis” lacks clear antecedent basis.

Claim 13 is confusing because claim 13 at line 2+, applicant functionally claims a shank of a cutting tool bit; however, thereafter applicant positively claims structure to the tool bit; therefore it is unclear if applicant is claiming the cutting tool bit or not.

Claim 13 line 4, “shank” is recited however, it is unclear if it relates back to the “shank” recited in claim 13 line 3 or the “shank” recited in claim 9 line 4.

Claim 13 line 7, it is unclear what element the “vertical axis” is referring to.

Claim 13 line 8, “the cutting tip” lacks clear antecedent basis.

Claim 13 line 8 is confusing because it is not clear how “central axis” recited at claim 13 line 8 is related to the “vertical axis” recited at claim 13 line 7.

Claim 14 line 2, “said **portion** of said bit holder bore” lacks clear antecedent basis.

Claim 15 line 4, “said support” lacks clear antecedent basis.

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Claim 15 is confusing because claim 15 at line 6+, applicant functionally claims a shank of a cutting tool bit; however; thereafter applicant positively claims structure to the tool bit; therefore it is unclear if applicant is claiming the cutting tool bit or not.

Claim 15 line 9, "the vertical axis" lacks clear antecedent basis.

Claim 15 line 10, "the cutting tip" lacks clear antecedent basis.

Claim 15 line 10, "the central axis" lacks clear antecedent basis.

Claim 16 line 2, "**said portion** of said bit holder bore" lacks clear antecedent basis.

Claim 16 line 3, "said vertical axis" lacks clear antecedent basis.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Crosby (US 3865437).

Crosby discloses a sleeve (16,22,20,24,26) comprising a body element including a forward portion (22) adjacent an intermediate portion and a split portion adjacent said intermediate

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portion (see Figs. 1 and 3). The split portion appears to extend for less than half the length of the body element. The forward portion is a collar. The split portion and intermediate portion are cylindrical. The cylindrical intermediate portion and the cylindrical split portion have external surfaces of uniform diameter. A block (10) having a cavity bore (12).

12. Claims 1-4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Crosby '437.

Crosby discloses a sleeve (44) comprising a body element including a forward portion adjacent an intermediate portion and a split portion adjacent said intermediate portion (see Fig. 5). The split portion appears to extend for less than half the length of the body element. The forward portion is a collar. The split portion and intermediate portion are cylindrical. A block (40) having a cavity bore (42). The bore is a stepped bore (see Fig. 5). The cavity has a tapered surface between the larger step bore and the smaller step bore (see Fig. 5).

13. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Emmerich et al. (US 4084856).

Emmerich et al. discloses a sleeve (114, see Fig. 3)) comprising a body element including a forward portion (112) adjacent an intermediate portion and a split portion adjacent said intermediate portion (see Fig. 3). The split portion appears to extend for less than half the length of the body element. The forward portion is a collar. The split portion and intermediate portion

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are cylindrical. The cylindrical intermediate portion and the cylindrical split portion have external surfaces of uniform diameter. A block (100) having a cavity bore.

14. Claims 1-4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Emmerich et al. '856.

Emmerich discloses a sleeve (40, see Fig. 1) comprising a body element including a forward portion (44) adjacent an intermediate portion (48) and a split portion (52) adjacent said intermediate portion (see Fig. 1). The split portion appears to extend for less than half the length of the body element. The forward portion is a collar. The split portion and intermediate portion are cylindrical. A block (22) having a cavity bore (24). The bore is a stepped bore (see Fig. 1). The cavity has a tapered surface (36) between the larger step bore and the smaller step bore.

15. Claims 9-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Kennametal Inc.; The Mining Tool Authority Cutting and Drilling Systems ...For Underground and Surface Mining.

The Kennametal brochure discloses a cutter tool assembly for attachment to cutting tool machinery comprising a bit holder having a T-shaped key shank, a support block having a T-shaped groove for receiving said bit holder T-shaped key shank, wherein said support block has symmetric top surfaces flanking said T-shaped groove, said support block having a central vertical axis, said symmetric top surfaces are oriented at an angle with respect to the horizontal plane so as to reduce rotation of the bit holder about said vertical axis. The angle appears to be between 10-15 degrees. A portion of the bit holder bore is positioned generally aft of the vertical axis.

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The portion of the bit holder bore positioned aft of the vertical axis is about 75% (see page 83 of Kennametal brochure).

16. Claims 9, 10, 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Montgomery Jr. (US 4542943).

Montgomery Jr. discloses a cutter tool assembly for attachment to cutting tool machinery comprising a bit holder having a T-shaped key shank (4), a support block having a T-shaped groove (2) for receiving said bit holder T-shaped key shank, wherein said support block has symmetric top surfaces flanking said T-shaped groove (see Fig. 7), said support block having a central vertical axis, said symmetric top surfaces are oriented at an angle with respect to the horizontal plane so as to reduce rotation of the bit holder about said vertical axis. The angle is 10 degrees. A portion of the bit holder bore is positioned generally aft of the vertical axis. The portion of the bit holder bore positioned aft of the vertical axis is about 75% (see Fig. 3).

17. Claims 9, 13-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Sulosky et al. or Aden (US 5647641, 4343516) (see Figs. 10 and 3 respectively).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomery Jr. '943 in view of Krekeler (US Re. 28,310).

Montgomery Jr. discloses the invention substantially as claimed. However, Montgomery Jr. is silent about the symmetric top surfaces being oriented at an angle of about 15 degrees. Krekeler teaches symmetric top surfaces being oriented at an angle of about 15 degrees (see Fig. 8; col. 9 line 3+; col. 6 line 43). It would have been considered obvious to one of ordinary skill in the art to modify Montgomery Jr. by making his symmetric top surfaces orient at an angle of about 15 degrees in order to reduce the wear between the holder and block due to relative movement between the holder and block.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (703) 308-4024. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford, can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

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2/7/02


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